



Scheme for flat feet. L. Creighton

1. Stich. grasp sitt - Chest lift. + lower. ✓
2. St. st - easy arm. swing. ✓
3. W Part. opp. grip - stand - slow hl. rais. + deep ten. bend. ✓
4. X l. sitt - H. bd + stick s-s. ✓

Special -

- a. Sitt - Toe wiggling. (one after the other)
- b. " " - Ank. flexion with toes curled under ft - slowly extend + uncurl.
- c. " " - Toes ab + ab. (slowly) ✓
- d.

5. Bk. hy. - Slowly sitt. up + ly. back. ✓
6. Bk. clp. kn. bow sitt - bk. stich. ✓
7. Bk. ly. - alt. kn. bend + stich w A bend + stich. u + d. ✓
8. Sitt - Ch. expand + relax w. deep breathing.

Good

Flat Foot -

1. Feet astride jp. w hands clap. overhead.
2. Lying - Breathing in all parts of thorax.
3. X l. sitt - H. nodd (4 cts.)
4. Toe grip x l. sitt - Rocking horse or Loring or Combination sawing in cl. st.
5. Cr. ly - 2 kn. updraw.
6. St. on outer borders of ft. + spec. ft. ex.
7. hy - alt A upwd. flng.
8. Cl. st - Alt. kn. rais. + lower.
9. hy - deep breathing.

## Flat Feet.

1. Slack Sitt - Chest lifting.
2. Close .. - 2 A. sit. + stand.
3. A. ly - alt. l. upw. & r. bd.
4. X l. sitt - Head nodding
5. Wg. High ride - T. shud. bending
6. Low stp. std. sitt - T. raising Vert. by Vert. breathing.
7. Yd std. ST - 2 Blane Arms carrying.
8. A. ly - alt. kn. str. lower, lift + bend
9. Close sitt - Deep breathing = arm rotation out  
(chest expansion)

Abences of curves in back or diminution

Flat Back :- " " " "

Cause :-

1. Over-correction of other postural defects.
2. Lying in bed.

Symptoms -

1. Normal convex curve in dorsal region is obliterated or pronounced.
2. Ribs protruding.

Treatments :-

1. Teach correct position.
2. If giving <sup>each</sup> Arch - then stop
3. Ex - fwd & down. bend.

## Scoliosis.

Rest - 1 hr. flat on Stomach.

### Obj. of Gym treatment

1. To get spine loosened up in all directions.
2. Redistribution of wt. in line of gravity.
3. Re-educate B's sense of posture.
4. Obtain full & correct breathing in all parts of chest.
5. Strengthen general muscular tone.
6. Only Ex. for both sides of body. - Symmetrical
7. Static holdings - these stretch & mobilize the spine

### Postural Scoliosis

1. Entirely cured by adequate treatment.

#### Structural

2. In young children when a moderate degree should be practically cured by good long continued treatment.

#### Terms

R. or L - according to convexity.

If 2 R. in Dor. region - C curved.

Can have R. or L. C or S. curve compound - U

S - curved concavity.

#### Primary -

#### Secondary -

1<sup>st</sup> ° curve - postural

2<sup>nd</sup> ° structural - change in lig & soft tissues.

3<sup>rd</sup> ° soft structures (lig & m) & also bony deformities occurring.

#### Structural

Believes when reason to believe that structural changes have taken place in vert.

1. Simple or 2. Compound.

1. Sometimes spoken of as C curved.

2. S

Triple curves at times exist.

When present add. to 1. & 2. 2 b. curves - don't exist with 1 st. curves.

Varieties of Structural Scoliosis -

Lumbar curves - greatest distortion in hips & waistline. Lumbar Scoliosis can exist as single curve or 1 component of of compound curve. may be st. or b. More frequent in females. greatest deviation at level of 2<sup>nd</sup> or 3<sup>rd</sup> d. c. d.

Signs -

1. displaced to convex side. Side & waistline on that side is obliterated on that side. Waistline on concave side sunken in. Folds of skin appearing on flank. Apparent prominence of hip not by a dressmaker. Fullness of Bk noted on Convex side, caused by rotation of vertebrae carrying with them the soft structures. - less prominent than in dorsal region. Lateral mobility of spine more free by bending to concave side. Forward rotation of pelvis maybe noted.

Dorsal Curve - greatest distortion in Thorax & shlds.

Frequently single curves - more often part of other varieties.

May be st. or b. <sup>Heated point</sup> Curves <sup>begin</sup> from 6<sup>th</sup> - 8<sup>th</sup> Vert.

Signs - as above

On convex side Head is displaced on that side - over long concave side - waistline flattened out & ribs appear clear chest. Shoulder on side of convexity usually high. Marked lat. prominence due to rotation of vert. & increased angulation of hips. Somewhat like rotation of esp.

On concave side - thorax flattened. Esp. sunken & displaced dor & inf L rotated in. Fold of skin run in. & away from waistline giving appearance of high waist line for that side

Present complications in appearance.

If lordosis predominates

R. dorsal, L. lumbar most often seen.

Often pointed on convexed side. Alteration in joint planes. Rotation of Vert. bodies concide to side of convexity. Reason - bodies more plastic and least fixed part of Vert. C. Intervertebral discs show same changes. Compression on concave side & become much wider.

Thorax altered in shape. Diaphragm assumes a bowing on side of convexity.

Causes - Malformation of spine. Congenital. "Sprengel Acapula" - malformation (small) wings out - M. not develop. " of thorax. Intercostal growth - pressure.

B. Acquired Anatomical asymmetry. May get scoliosis due to "wry neck". Scoliosis - eye strain - ear.

C. Ophthalmological Changes - (arthritis - rickets, I.B) & Potts disease & tumor of spine - not treated by symptoms) Scoliosis of this class symptom of disease. Diseases of bones & joints in lower extremity or shoulder. Distorting <sup>Soft parts</sup> seen.

1. Infantile Paralysis - great many cases of Scoliosis  
2. Due to spinal parap

Displaced Head.

Causes (2 may meet)

1. Uni-lat. occupation.
2. Habit.
3. Violin Playing.
4. Side saddle sit.
5. Mechanical or industrial.
6. Uni-lat. weight bearing.
7. Physical debility (weakness).
8. Deficient visual sense.

Examination of Spine.

1. General condition of Patient.
2. Notice whether thin or well-developed.
3. Healthy color or Anemic.
4. Highly strong.
5. Chest expansion.
6. Flat feet or other deformities measure legs.
7. Glasses. - Do wear?
8. Dress - well fitting.
9. Examine neck & light. How Stand?

1. Back straight.

2. Chin out.

3. Deformed scap.

4. Mark spinous process.

After Back - Thorax.

1. Any deformities of chest - rickets.

2. Examine from side - physiological changes.

Normal curves. Mobility of Spine.

Side flex - rotat. - ed to toes.

### Treatment of Postural Cases:-

1. Rest
2. Gym.
3. Ul. side ex. for back.
4. Asymmetrical or Ul. sided ex.

From front thorax displaced on convex side  
showing prominence on concave side. Lower end of  
sternum displaced to convex side. Greatest  
thoracic diam. <sup>as well as</sup> on 1 ant plane instead  
of transverse. Lat. deformity there may be  
an increased normal curve.

If both should appear on same level usually  
points to compensatory curve in cervical region  
Loss of ht. Cervical curve - head sinks in 2 should.

Dorsal-Lumbar curves - character of 2 curves -  $\frac{1}{2}$  in  
dorsal -  $\frac{1}{3}$  in lumbar. Not assoc. with compensatory  
curve

#### Cervical Dorsal curve -

outline from base of skull to should. - fuller & less crested  
Shoulder is higher - scap. prominent on convex side  
whilst A. lyp. away from side. Rotation of Vert.  
& increase in angulation of ribs in lower part.  
Rotation less evident above. T. displaced  
to side of convexity.